

Listed Waterbody: **Aptos Creek/Valencia Creek, San Lorenzo River
Estuary, and Soquel Lagoon**

Listed Condition: **Pathogens**

Progress Report: **Second Quarter Status of Project Activities: FY 04-05**

Santa Cruz County beaches are periodically affected by beach closures. Often the sources of closures are not known. Aptos Creek, San Lorenzo River Estuary, and Soquel Creek contribute pathogen loading to affected beaches. The State of California executed a contract with the County of Santa Cruz Environmental Health Services on March 1, 2003 to reduce the potential for human source bacteria discharges from these water bodies. The State funded this contract with funds authorized by California Proposition 13 Funds.

Previously identified possible sources of contamination include sanitary sewer overflows, storm drains, bird populations, transients, domestic animals, recreational vehicle sewage dumping, septic system failure, and unknown sources. This project will evaluate the health risk presented by elevated bacteria, assess the contribution of possible sources, and provide recommendations to reduce the sources of contamination caused by human sources.

The State contract will assist the Regional Board by providing information that is expected to contribute toward a Total Maximum Daily Load. This contract will provide the following information:

- A Monitoring and Reporting Plan. A plan to summarize past data, sample problem areas, and perform RNA analysis of E. Coli to determine sources of contamination will be prepared. This report was completed on September 30, 2003.
- Analytical Results of Monitoring. Results of sampling performed in problem areas and of RNA analysis will be prepared. This report was due on December 1, 2004. Additional time is needed for Santa Cruz County staff to perform data entry and analysis. Regional Board staff anticipate the results will be submitted January 15, 2005.
- Findings from Sewer Evaluations. Areas of possible leakage from sewers or leakage from storm drains caused by cross contamination with sewers will be identified. Santa Cruz County will identify necessary sewer corrections. Corrections include repairs to breaks in lines or cross-connections. The findings were due on November 30, 2004. Santa Cruz County is waiting for adequate soil saturation in order to make the investigation results useful. To date, the County has not yet experienced enough rainfall to provide peak ground water levels. Regional Board staff anticipate the results will be submitted March 1, 2005.
- A Health Risk Study. A health risk study to determine the actual incidence of human disease in relation to water quality measured will be performed. Although this information is not expected to be useful for the TMDL, it may eventually be significant in possible future pathogen objective revisions. This study was due on December 1, 2004. Additional time is needed for Santa Cruz County staff to perform data entry and analysis. Regional Board staff anticipate the results will be submitted January 15, 2005.

- Draft and Final Report. The report will indicate whether the purposes of the project have been met will be prepared. It will include information collected in accordance with the project monitoring and reporting plan. The report will discuss the effectiveness of monitoring results. The report will also address the effectiveness of any management measures implemented as part of the project in evaluating, preventing, or reducing nonpoint source pollution. The draft report is due January 1, 2005 and the final report is due March 1, 2005.

The Proposition 13 contract will not focus on discharges to Valencia Creek. Therefore, a separate investigation is necessary to determine bacteria sources. Santa Cruz County Environmental Health Services began monitoring Valencia Creek in October 2004. The County will perform monitoring in accordance with Regional Board TMDL monitoring needs. The County will compile the data and provide it to the Regional Board by October 31, 2005. Regional Board staff will attempt to receive available data on a monthly basis. (The County can make data available if it has been inserted into electronic database.)

Project Completion Plans (the following information and schedule is consistent with all the existing Project Plans):

Problem Definition and Data Analysis: A problem definition was prepared in June 2002. However, the problem definition will be updated to incorporate monitoring results of the Proposition 13 contract.

For Aptos Creek, San Lorenzo River Estuary, and Soquel Lagoon, staff expects to complete a data analysis report by April 2005. Regional Board staff will provide this report based on the assumption that the Proposition 13 contract will be completed on time. (The Proposition 13 contract expires in March 2005.)

Santa Cruz County started monitoring on October 1, 2003. Monitoring was completed in October, 2004. Some follow up testing has continued, particularly for ribotyping in areas that may need further investigation prior to completion of the study. During this reporting period, 200 basic samples and 60 investigative samples were collected and analyzed. Approximately 60 samples were submitted for ribotyping to assess the source of the E.Coli. Work on data compilation and analysis has commenced.

For Valencia Creek, staff expects to receive all Santa Cruz County monitoring by October 2005. Staff will have a Data Collection and Analysis Report available in November 2005. (This is one month later than the Project Plan estimated on June 22, 2004.)

Source Analysis: For Aptos Creek, San Lorenzo River Estuary, and Soquel Lagoon, staff expect to utilize the results of the Proposition 13 contract to perform a Source Analysis by September 2005. This is based on the assumption that the Proposition 13 contract will provide the necessary information for Source Analysis. In the event this project does not provide all the information a Source Analysis requires, additional Regional Board investigation may be necessary. If additional Regional Board investigation is necessary, this will extend the timeframe Staff can complete a Source Analysis into a future date.

In addition to the basic sampling, the investigative sampling, and the ribotyping samples, the County is performing a sewer evaluation. Sewer evaluations have been completed in the vicinity of Santa Cruz Main Beach (as part of a Clean Beach Initiative Project). Dry weather evaluations were completed in Capitola as part of another Proposition funded study. Additional wet weather evaluations will be done in January 2005 in Capitola (which drains to Soquel Lagoon). Sewer evaluations will be done in January in the Rio del Mar area (which may affect discharges to Aptos Creek.)

For Valencia Creek, staff expects to utilize Santa Cruz County monitoring results to perform a Source Analysis by February 2006. This is based on the assumption that monitoring data will be submitted by October 2005 and will be sufficient to provide the necessary information. In the event monitoring data does not provide all the information a source analysis requires, additional Regional Board investigation may be necessary. If additional Regional Board investigation is necessary, this will extend the timeframe staff can complete a Source Analysis into a future date.

Selection of Numeric Target: Regional Board staff prepared a report on July 20, 2004 describing numeric targets.

Target Linkages: Regional Board staff expects to provide this information by April 2006. This is based on the assumption that previous task are completed as scheduled.

Loads and Allocations: Regional Board staff expects to provide this information by April 2006. This is based on the assumption that previous task are completed as scheduled.

Implementation and Monitoring Plan: Regional Board staff expects to provide this information by April 2006. This is based on the assumption that previous task are completed as scheduled.

Planned Timeline for Completion of the TMDL with Implementation Plan that meets State requirements: Regional Board staff expects to provide this information by April 2007. This task includes preparing CEQA documents, and obtaining stakeholder and scientific peer review.(This is also based on the assumption that previous task are completed as scheduled.)

Questions about this project, its' progress, conclusions presented in this Progress Report, or anticipated future work planned or scheduled for this project should be addressed to Angela Carpenter at the Regional Board. Ms. Carpenter may be contacted by telephone at: (805)- 542- 4624, or by e-mail at: acarpenter@waterboards.ca.gov

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